From: POULSEN Mike
To: Dana Davoli/R10/USEPA/US@EPA
Cc: Eric Blischke/R10/USEPA/US@EPA
Subject: RE: Tox values for Portland Harbor
Date: 10/15/2008 04:44 PM

Dana -

I don't care if they pick 1(a) or 1(b).

I'm fine with the email, although I have one more suggestion. In the intro for TCE in (B), I wouldn't use the word "confusion". Perhaps "uncertainty" or "disagreement" would be better.

- Mike

-----Original Message-----
From: Davoli.Dana@epamail.epa.gov [mailto:Davoli.Dana@epamail.epa.gov]
Sent: Wednesday, October 15, 2008 4:03 PM
To: Blischke.Eric@epamail.epa.gov
Cc: POULSEN Mike
Subject: Re: Tox values for Portland Harbor

Yes, we can. I had originally decided to pick 1(a) so we would be using the same studies as ODEQ, although they are using the upper end of the range. I just couldn't think of a compelling reason to choose one over the other. I suspect that Laura will choose 1(a) anyway since it is lower. Mike, do you care?

Eric Blischke/R10/USEPA/US
10/15/2008 03:54 PM
To: Dana Davoli/R10/USEPA/US@EPA
cc:
Subject: Re: Tox values for Portland Harbor(Document link: Dana Davoli)

Can't we pick 1a) or 1b) for the evaluation of TCE cancer risk?

Eric

Dana Davoli/R10/USEPA/US
10/15/2008 03:47 PM
To: poulsen.mike@deq.state.or.us, Marcia Bailey/R10/USEPA/US@EPA
cc: Michael Cox/R10/USEPA/US@EPA, Eric Blischke/R10/USEPA/US@EPA, Chip Humphrey/R10/USEPA/US@EPA, Lon Kissinger/R10/USEPA/US@EPA
Subject: Re: Tox values for Portland Harbor(Document link: Eric Blischke)

Below is the response I would like to send to Laura's e-mail at the bottom of this e-mail. I would like to send it out tomorrow morning. Let me know if you have any problems with it.

Hi, Laura. As you know the Regional PRGs previously calculated by Regions 3, 6 and 9 EPA have been harmonized into a single table: "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites." These updated screening levels, along with a detailed user's guide and supplementary tables, can be accessed directly on-line (http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm) or downloaded to your own computer. Below is a response to your questions about toxicity values for TCE and about application of the TEFs to the RfD for 2,3,7,8 - TCDD that is in the RSL tables:

(A) Non-cancer Endpoint for Dioxins -The RSL tables include a RfD for 2,3,7,8 -TCDD of 1E-9 mg/kg-day which is based on a chronic ATSDR MRL for

2,3,7,8 -TCDD. After review of the 2005 WHO publication on TEFs and e-mail exchanges with ATSDR (see below), the Region 10 EPA OEA has decided that it is appropriate to apply the 2005 WHO mammalian TEFs to the RfD for 2,3, 7,8 -TCDD that is in the RSL table to evaluate the non-cancer toxicity for other dioxin and furan congeners. The 2,3,7,8-TCDD RfD should be used with the 2005 WHO TEFs to estimate the non-cancer health impacts (i.e., HQs and HIs) from total chlorinated dioxins and furans, total dioxin-like PCBs, as well as the sum of all chlorinated dioxins and furans and total dioxin-like PCBs.

(B) Trichloroethylene (TCE) - As you know, there has been considerable confusion the past several years regarding how to evaluate trichloroethylene toxicity. There are no cancer potency or non-cancer toxicity values available on IRIS. The cancer assessment was withdrawn from IRIS in 1989. EPA's Office of Research and Development (ORD) is revising U.S. EPA, 2001, following reviews by EPA's Science Advisory Board and a National Research Council committee. Until that has been completed, Region 10 OEA is recommending the following as interim TCE values:

For cancer oral and inhalation assessments:

1a) use of the geometric mid-point of the slope factor range from EPA 2001 (0.089 per mg/kg-day) for evaluating cancer risks for both inhalation and oral exposures. Using standard Superfund exposure assumptions for residential settings and a 1E-6 excess cancer risk level, this value would result in an acceptable TCE air concentration of 0.10 µg/m3 and a acceptable soil concentration of 7.7 mg/kg;

or

1b) use of the CalEPA oral slope factor (0.013 mg/kg-day) and the CalEPA inhalation unit risk (2E-6 per µg/m3), adjusting each value upward by a factor of 10 (0.13 mg/kg-day and 2E-5 per µg/m3). Using standard Superfund exposure assumptions for residential settings and a 1E-6 excess cancer risk level, these adjusted values would result in an acceptable TCE air concentration of 0.12 µg/m3 and an acceptable soil concentration of 5 mg/kg.

and

For non-cancer inhalation assessments:

2) use of an inhalation reference concentration of 10 ug/m3, based on the analysis by NYDOH. This means that a concentration of 10 ug/m3 TCE in air represents a hazard quotient of 1.0.

At this time, we have no specific recommendation for evaluating oral exposures for noncancer endpoints.

ODEQ is still recommending use of the high end of the slope factor range presented in EPA's Trichloroethylene Health Risk Assessment: Synthesis and Characterization (External Review Draft) (U.S. EPA, 2001) for both inhalation and oral exposures to TCE. Therefore, for risk characterizations and decisions made for ODEQ, the high end of the slope factor range should continue to be used.

Please call me (206 553-2135) or e-mail me if you have any questions.

Dana

"Pohl, Hana R. (ATSDR/DTEM/PRMSB)" <hrp1@cdc.gov>
06/26/2008 07:27 AM

To: Marcia Bailey/R10/USEPA/US@EPA
cc: "Chou, Selene (ATSDR/DTEM/PRMSB)" <cjc3@CDC.GOV>
Subject: RE: question about ATSDR MRL for 2,3,7,8-TCDD

Dr. Bailey:

ATSDR's MRLs are derived based on studies on 2,3,7,8-TCDD. The health based guidance values are applicable to 2,3,7,8-TCDD or to total TEQs. A practical application of this concept can be found in the Toxicological Profile for Chlorinated Dibenzo-p-Dioxins (Appendix B) www.atsdr.cdc.gov or detailed in:

De Rosa CT, Brown D, Dhara R, Garrett W, Hansen H, Holler J, Jones D, Jordan-Izaguirre D, O'Connor R, Pohl H, Xintaras C. 1999. Dioxin and dioxin-like compounds in soil, Part I: ATSDR policy guideline. Toxicol Ind Health 15(6):552-557.

De Rosa CT, Brown D, Dhara R, Garrett W, Hansen H, Holler J, Jones D, Jordan-Izaguirre D, O'Connor R, Pohl H, Xintaras C. 1999. Dioxin and dioxin-like compounds in soil, Part II: Technical support document for ATSDR policy guideline. Toxicol Ind Health 15(6):558-576.

With regards,

Hana Regina Pohl, M.D., Ph.D.

"Laura Kennedy" <LauraKennedy@KennedyJenks.com>

10/15/2008 11:41 AM

To Dana Davoli/R10/USEPA/US@EPA

cc

Subject Tox values

Hi Dana,

When we spoke last, you mentioned that you were going to provide some information/guidance from Region 10 on the tox values to use in the baseline HHRA (specifically, I think you mentioned TCE and the noncancer endpoint for dioxins). Do you have an update on when you'll be able to provide that?

Thanks,

Laura